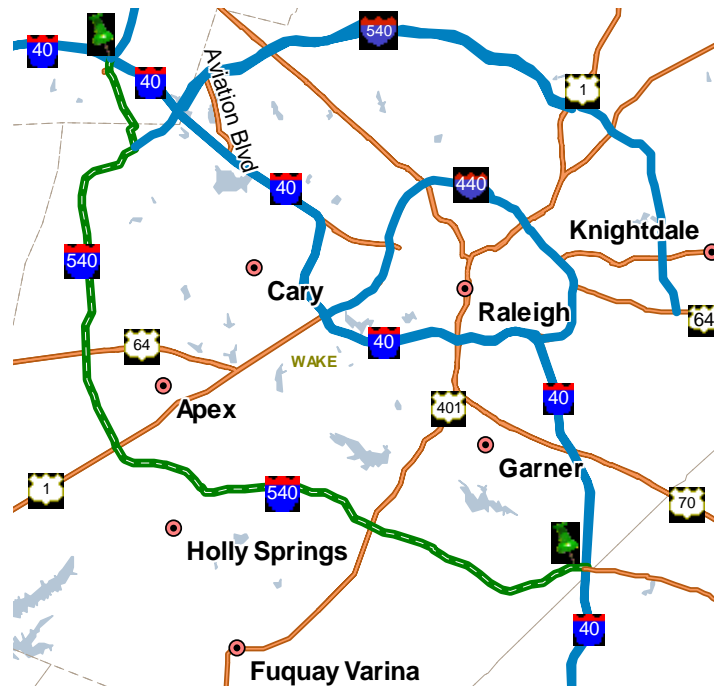


“Getting there faster”

The need for completing the
Western and Southern Wake freeways
and the Triangle Parkway ...
– and background about the Turnpike option



an informational report from the

Regional Transportation Alliance

*The regional business leadership group that
focuses on relieving traffic congestion and enhancing mobility*

February 2006

Executive Summary

The Triangle region serves as the economic engine for eastern North Carolina. The ongoing population growth in the market demonstrates its success — within a decade, Wake County will be the largest county in the state, and only Clark County in metro Las Vegas exhibited a higher growth rate during the past decade for counties of Wake's size or larger. This ongoing increase in population is causing an increased strain on our mobility infrastructure and creating more traffic congestion and commuter delays. Triangle-area commute times increased from 20 to 25 minutes between 1990 and 2000 — a 23 percent increase and the highest percentage increase of any metro area in the U.S.

The sooner we complete I-540, the sooner we prevent highway gridlock from turning into economic gridlock.

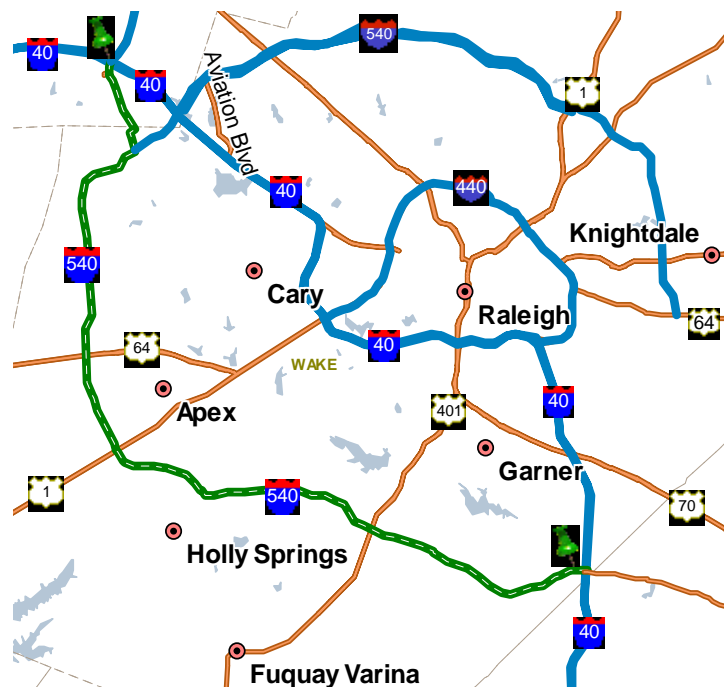
- Joe Freddoso

Director, RTP Site Operations, Cisco Systems
2006 chairman, Regional Transportation Alliance (RTA)

Interstate 540 – the Raleigh “Outer Loop” or the Wake freeway loop – is a critical link in our region’s multimodal transportation system. This circumferential freeway is designed to provide a rapid travel route

free of traffic signals for cars, trucks and buses across the perimeter of Wake County and to free up space on our existing roads for other users, including local deliveries, shoppers, pedestrians and bicyclists. The freeway is already providing substantial benefits to travelers between I-40 and US 1 north today, and by 2007 it will connect NC 55 near Morrisville with the new US 64/264 Knightdale bypass, creating a signal-free arc across the entire northern half of Wake County.

The continuation of the I-540 freeway loop to the south and west is also designed to provide relief for western Wake County — already developed and congested. In addition, a completed western and southern I-540 Wake freeway loop, in conjunction with the proposed Triangle Parkway spur in southern Durham and northwestern Wake counties, would serve as a viable alternative to I-40, particularly for longer distance travelers.



Increasing demands on scarce transportation funds is an unfortunate reality that has delayed construction of the western section of I-540 by several years and the southern section of I-540 indefinitely. NCDOT reports that the Western Wake freeway is not scheduled to be complete until 2022, and the Southern Wake freeway will not be complete until beyond 2030 under traditional funding means. When the US 70 Clayton freeway bypass opens later this decade, there will be no I-540 to receive that traffic — which will simply funnel most of the bypass traffic onto an already overburdened I-40.

North Carolina has recently created a statewide Turnpike Authority with the charge of building up to nine toll facilities across the state. Toll funding of needed freeway improvements, although promising, is new and unproven in North Carolina. The Alliance believes that tolls must be carefully examined to see if they could provide a viable means for accelerating the opening of the I-540 freeway in western and southern Wake County and the Triangle Parkway spur. In response to a request by the mayors of southwestern Wake County and the Alliance, and in order to provide more detailed information to Triangle residents and transportation officials, the N.C. Turnpike Authority commenced a financial feasibility study of the western and southern Wake freeways on December 14, 2005. The study will include several elements, such as a corridor demographic analysis, estimated traffic and revenue forecasts on the proposed freeway and parallel routes, a detailed cost analysis, and an estimate of bonding capability of the Western and Southern Wake freeways.

If tolls are found to be a viable and appropriate means for accelerating the construction of I-540, the Alliance pledges to support the concept — if the region can receive assurances that toll revenues will not be redistributed to projects in other regions and that the tolls will sunset when the project is complete and paid for. If tolls were used to accelerate these freeways, the region and state would receive the benefit of a new, signal-free travel option through the fastest-growing area of the state, essential for maintaining our economic competitiveness, while still retaining the non-toll corridors that exist today.

Alliance founding Chairman Smedes York noted in 2004 that a completed I-540 "will be essential for our long-term future." The rapid completion of the I-540 Wake freeway loop will combat future problems of diminishing mobility, increased pollution, decreased economic health and a rapidly declining quality of life. Waiting until 2030 and beyond is not a viable answer to the Triangle's transportation needs. A way must be found to complete this freeway — a critical link in maintaining our long-term economic viability and quality of life. Tolls or no tolls, we have the responsibility to obtain the best information on viable options for accelerating mobility infrastructure for the economic engine of eastern North Carolina — we need solutions now.

*... essential for our
long-term future ...*

- Smedes York
President, York Properties
Founding Chairman, RTA

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Introduction

The Regional Transportation Alliance (RTA) has consistently focused on relieving traffic congestion and enhancing mobility in the Triangle. As we learned more about the funding shortfalls and continuing delays for desperately needed transportation projects in the Triangle area during the past year, the Alliance became alarmed for our community's continued economic viability and overall quality of life. Indeed, when a threat occurs to one of the fundamental

elements in a healthy local economy – the ability of workers to get to and from their jobs in an efficient, safe and timely manner – it is time for the regional business community to speak up and help find workable solutions.

The sooner we complete I-540, the sooner we prevent highway gridlock from turning into economic gridlock.

- **Joe Freddoso**

Director, RTP Site Operations, Cisco Systems
2006 chairman, Regional Transportation Alliance (RTA)

Interstate 540 – the Raleigh “Outer Loop” or the Wake freeway loop – is a critical link in our region's multimodal transportation infrastructure. This circumferential freeway is designed to provide a rapid travel route free of traffic signals for cars, trucks and buses around the perimeter of Wake County and to free up space on our existing roads for other users, including local deliveries, shoppers, pedestrians and bicyclists. Unfortunately, increasing demands on scarce transportation funds is a reality that has delayed construction of the western section of I-540 by several years and the southern section of I-540 indefinitely.

Alliance founding Chairman Smedes York noted in 2004 that the I-540 loop “will be essential for our long-term future.” Clearly, a solution must be found to construct this freeway — a critical link in our long-term economic viability and quality of life.

... essential for our long-term future ...

- **Smedes York**

President, York Properties
Founding Chairman, RTA

North Carolina has recently created a statewide Turnpike Authority, with the charge of building up to nine toll facilities across the state. Toll funding of needed freeway improvements, although promising, is new and unproven in North Carolina. The Alliance believes that tolls must be carefully examined to see if they could provide a viable means for accelerating the opening of the I-540 freeway in western and southern Wake County. This report provides background information on current funding realities and the need for completing the freeway.

Incredible growth in the Triangle

Wake County is the largest county in the Triangle, the second-largest in the state and the economic engine of eastern North Carolina. Raleigh, the capital and second-largest city in North Carolina, is also the county seat of Wake County. Cumberland County, with Fayetteville as county seat, is the second-largest county in the eastern half of the state and the fifth-largest overall. Durham County,

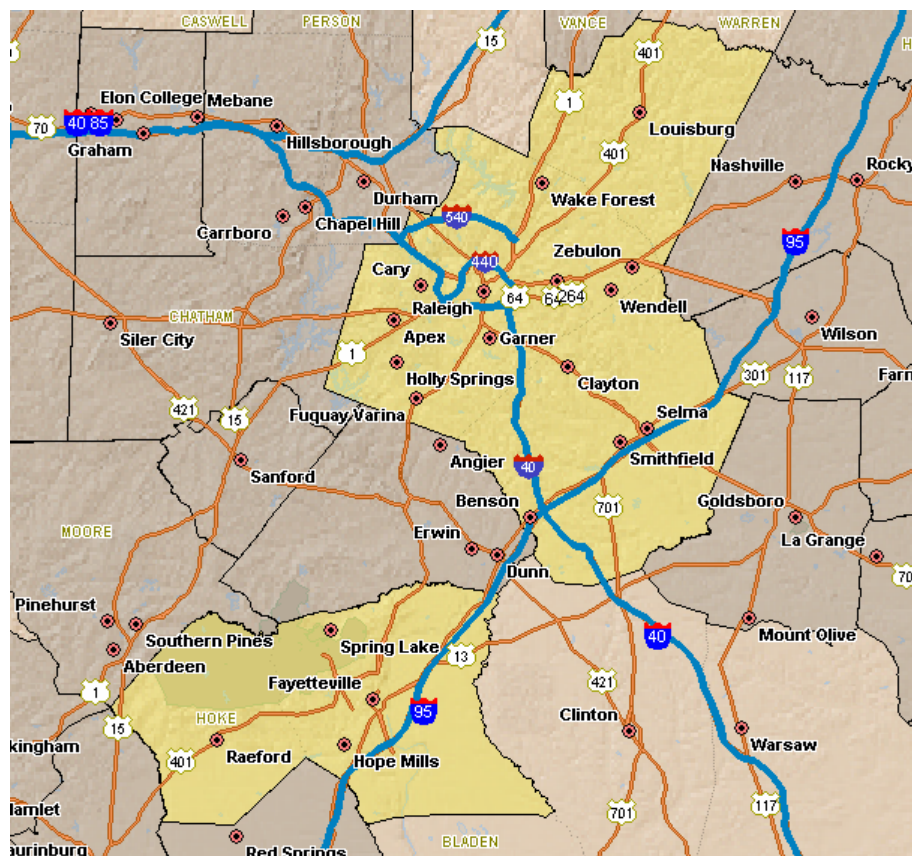
2005 Population		
1	Mecklenburg	787 k
2	Wake	746 k
3	Guilford	439 k
4	Forsyth	324 k
5	Cumberland	313 k
6	Durham	243 k
...		
15	Johnston	146 k

*North Carolina State Demographics
Updated May 25, 2005*

adjacent to Wake and home to the majority of Research Triangle Park (RTP), is the second-largest county in the Triangle region and the sixth-largest county in the state. Johnston County, adjacent to Wake, is consistently among the fastest growing counties in the state and is currently the 15th largest out of 100 counties in North Carolina.

2004 Population		
1	Charlotte	609 k
2	Raleigh	325 k
3	Greensboro	233 k
4	Durham	205 k
5	Winston-Salem	313 k
6	Fayetteville	131 k
7	Cary	110 k
...		
16	Chapel Hill	52 k
21	Goldsboro	39 k
25	Apex	26 k

*North Carolina State Demographics
Updated September 23, 2005*



Raleigh-Cary and Fayetteville Metropolitan Statistical Areas

The phenomenal growth in places like Wake County and Johnston County is not ephemeral. Major housing and commercial developments are announced monthly, and the influx is expected to remain strong for the foreseeable future.

Indeed, growth projections indicate that Wake County will overtake Mecklenburg County (Charlotte) during the next 10 years to become the most populous county in North Carolina.

THE NEWS & OBSERVER

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Published: Dec 02, 2005 12:30 AM
Modified: Dec 02, 2005 06:09 AM

Johnston farm up for sale

Development could add 5,500 people to Clayton

PEGGY LIM, Staff Writer

Ray Earp Jr. and his sister, Winkie Worley, are putting their 652-acre Clayton farm up for sale. With it will go part of the history that has connected their family to Johnston County for more than 200 years.

Triangle residents may know the farm as the home of one of the state's premier horse racing events. For 13 years, it has drawn up to 20,000 spectators for the Brookhill Steeplechase.

The sale, which is not yet final, could eventually add about 5,500 residents to Clayton. A developer wants to convert the rolling pastureland and woods into a subdivision of about 2,200 homes.

Clayton officials embrace the project -- a mix of townhouses, apartments, single-family homes and retail, which over 10 years could increase Clayton's population by about 50 percent. Many still question how the area's schools, roads and sewage-treatment capacity can accommodate so many residents. But officials say the property's size offers a better opportunity for planning than piecemeal developments would. Raymond Elmore Earp bought the land off Covered Bridge Road in 1951 shortly after the birth of his second child, Mary Willie Earp -- a preemie who got her nickname from nurses at Rex Hospital, from the nursery rhyme "Wee Willie Winkie." The land was a trust for his two children.

	2010 pop'n.	2015 Pop'n.
1 Wake	860 k	982 k
2 Mecklenburg	881 k	981 k
3 Guilford	467 k	496 k
4 Forsyth	344 k	364 k
5 Cumberland	324 k	338 k
6 Durham	260 k	279 k
...		
11 Johnston	168 k	193 k

North Carolina State Demographics
Updated May 25, 2005

By 2010, four of the 12 most populous counties in North Carolina will be along the I-40/I-95 vertical corridor in the east-central part of the state that connects the Triangle with Fayetteville. Downtown Durham and downtown Fayetteville are only 90 miles apart along the I-40/I-95 corridor through Durham, Wake, Johnston, Harnett and Cumberland counties. The Durham and Cumberland County borders are less than 60 miles apart along the existing Interstate system.

By 2030, our region will be the home of four of the state's nine largest counties -- Wake, Cumberland, Durham and Johnston -- and serve as the state's population hub. Wake County will be more than 80 percent larger than its current size, and Johnston County in 2030 will be significantly larger than Durham County is today. Cumberland and Durham counties will continue to grow and remain the fifth and sixth largest counties in the state.

2030 Population	
1 Wake	1,367 k
2 Mecklenburg	1,297 k
3 Guilford	589 k
4 Forsyth	427 k
5 Cumberland	371 k
6 Durham	336 k
7 Union	306 k
8 Buncombe	285 k
9 Johnston	271 k

North Carolina State Demographics
Updated May 25, 2005

The population and growth of Wake County is substantial, even on a national basis. Census 2000 data pegged the county's population at 628,000. Indeed, of those U.S. counties with populations higher than Wake County, only Clark County, Nevada (Las Vegas), had a higher growth rate between 1990 and 2000. Perhaps not surprisingly, Triangle area commute times increased from around 20 to 25 minutes between 1990 and 2000—a 23 percent increase and the highest percentage increase of any metro area in the U.S.

Even in 2000, the estimated Wake County population exceeded that of both Cobb and Gwinnett counties in metro Atlanta. Travis County (Austin), Texas – one of Wake's "peer" counties nationally – possessed a similar but lower growth rate and slightly higher population. Wake County's 2005 population is more than 100,000 above the 2000 census level and continues to climb.

County	City/Metro	State	2000 Pop'n	Growth '90 - '00
Harris	Houston	TX	3.4 m	21 %
Maricopa	Phoenix	AZ	3.1 m	45 %
Orange	Anaheim/Santa Ana (L.A. metro)	CA	2.1 m	18 %
San Diego	San Diego	CA	2.8 m	13 %
San Bernadino	Los Angeles (San Bern./NE metro)	CA	1.7 m	22 %
Santa Clara	San Jose	CA	1.7 m	12 %
Riverside	Los Angeles (Riverside/E metro)	CA	1.5 m	32 %
Clark	Las Vegas	NV	1.4 m	86 %
Sacramento	Sacramento	CA	1.2 m	18 %
Hillsborough	Tampa	FL	1.0 m	20 %
Fairfax	Washington (DC)	VA	970 k	18 %
Contra Costa	San Jose/San Fran./Oak. Bay Area	CA	949 k	18 %
Salt Lake	Salt Lake City	UT	898 k	24 %
Orange	Orlando	FL	896 k	32 %
Montgomery	Washington (DC)	MD	896 k	15 %
Pima	Tucson	AZ	844 k	27 %
Fulton	Atlanta	GA	816 k	26 %
Travis	Austin	TX	813 k	41 %
Fresno	Frenso	CA	799 k	20 %
Duval	Jacksonville	FL	779 k	16 %
Mecklenburg	Charlotte	NC	695 k	36 %
DeKalb	Atlanta (E metro)	GA	666 k	22 %
Multnomah	Portland	OR	660 k	13 %
Lake	Chicago (N metro)	IL	644 k	25 %
Wake	Raleigh	NC	628 k	48 %
Cobb	Atlanta (Marietta/NW metro)	GA	608 k	36 %
Gwinnett	Atlanta (NE metro)	GA	588 k	67 %
Will	Chicago (Joliet/SW metro)	IL	502 k	41 %
Collin	Dallas (Plano/NE metro)	TX	492 k	86 %
Anne Arundel	Annapolis	MD	490 k	16 %
Arapahoe	Denver (Aurora/E metro)	CO	488 k	25 %
Johnson	Kansas City (Overland Pk/W metro)	KS	451 k	27 %
Washington	Portland (Beaverton/W metro)	OR	445 k	43 %
Lee	Fort Myers	FL	441 k	32 %
Guilford	Greensboro	NC	421 k	21 %
Denton	Dallas/Fort Worth (Denton/N metro)	TX	433 k	58 %
Greenville	Greenville	SC	380 k	19 %
Utah	Provo	UT	369 k	40 %
Dakota	Minn.-St. Paul (S metro)	MN	356 k	29 %
Forsyth	Winston-Salem	NC	306 k	15 %
Cumberland	Fayetteville	NC	303 k	10 %
Boulder	Boulder	CO	291 k	29 %
Prince William	Washington DC	VA	281 k	30 %
Henrico	Richmond	VA	262 k	20 %
Chesterfield	Richmond	VA	260 k	24 %
Durham	Durham	NC	223 k	23 %

*Selected large and/or high-growth counties in the United States
2000 US Census Data*

The existing highway network in Western Wake County

In western Wake County, two north-south arterial highways – NC 55 and Davis Drive – parallel the future I-540 Western Wake freeway and the Triangle Parkway. A review of these existing signalized routes highlights the dramatic need for a viable alternative.

NC 55 is a primary north-south route between southwestern Wake County and RTP/I-40. A total of 28 traffic signals were in operation as of January 2006 along NC 55 from I-40 in Durham to the future I-540 interchange at Apex, with two more proposed and others still likely at locations such as both of the future I-540 freeway interchanges. Several signals involve multiple restricted turning phases, including the US 1 freeway, Pemberton Hill Road and High House Road. Five signals were added in a one-mile stretch of NC 55 in Apex (from US 64 to the Apex Peakway) during an 18-month period. While travel times are variable along this signalized roadway and the construction project is not yet complete, peak travel times between Holly Springs and I-40 can take 40 minutes or more.

Davis Drive fares little better. A total of 18 traffic signals were operational as of January 2006 along Davis Drive (Salem Street within Apex) from I-40 to the intersection with NC 55 in downtown Apex, with three more proposed. Others are likely at the future Triangle Parkway interchange and more locations are possible. Counting the six signals along NC 55 south of the Salem Street/NC 55 intersection, the Davis Drive corridor from the future I-540 south of Apex to I-40 in Research Triangle Park has 24 signals in operation today, with more on the way. Several signals involve multiple turning phases, such as the intersection with High House Road. It is not uncommon for a trip from Holly Springs to I-40 via Davis Drive to approach 40 minutes during peak hours.

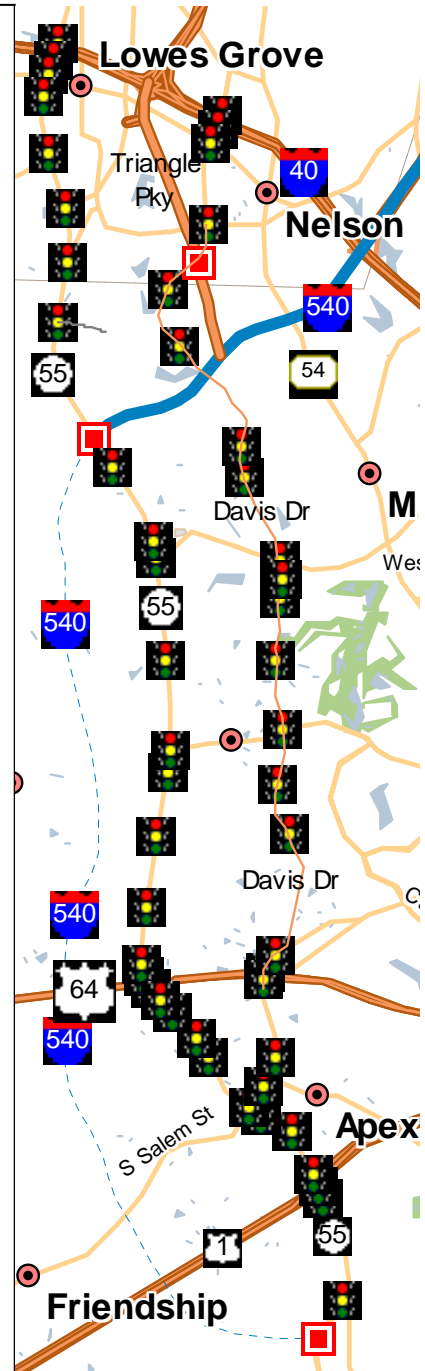
Both NC 55 and Davis Drive are undergoing widening projects. However, a 2004 RTA-sponsored study of the NC 55 corridor found that the increase in traffic signal installations along NC 55 – though necessary to improve access to side roads – would ultimately result in no net long-term travel time savings along the corridor.



NC 55, Davis Dr (Salem St) and future I-540 corridors in Apex

NC 55	Intersecting Road	Davis Drive
2 signals	I-40	2 signals
1 signal	NC 54 (Nelson-Chapel Hill Highway)	1 signal
1 signal	Allendown Dr	(n/a)
1 signal	Sedwick Rd	(n/a)
1 signal	TW Alexander Dr	(n/a)
(no intx. yet)	Hopson Road	1 signal
(n/a)	Triangle Parkway freeway	2 signals (likely)
1 signal (proposed)	Alston Avenue	(n/a)
---Durham/RTP---		
(n/a)	Development Drive	1 signal
1 signal	Kit Creek Road	1 signal
--RTP/Cary---		
2 signals (likely)	I-540 (under construction)	(n/a)
(n/a)	Parkside Valley Drive/Summer Sky Drive	-- RTP/Morrisville
1 signal (proposed)	Petty Farm Road/Alston Avenue South	1 signal
(no intx. yet)	McCrimmon Parkway	(n/a)
1 signal	Carpenter Fire Station Road	1 signal
1 signal	Morrisville-Carpenter Road	(n/a)
(n/a)	(shopping center)	1 signal (proposed)
(n/a)	Morrisville Parkway	1 signal (proposed)
- Morrisville/Cary -		
(n/a)	Preston Village Way/Hogans Valley Way	1 signal (proposed)
1 signal	Green Hope School Road	(n/a)
1 signal	Green Level West Rd/ High House Road	1 signal
1 signal	Parkscene Dr	(n/a)
(n/a)	Waldo Road Boulevard	1 signal
(n/a)	Park Village Drive	1 signal
1 signal	Turner Creek School Rd/Lewey Dr	(n/a)
---- Cary/Apex ---		
1 signal	Jenks Road/Old Jenks Road	1 signal
1 signal	Vision Drive	Davis Dr=Salem St
2 signals	US 64	(n/a)
1 signal	Pemberton Hill Rd	2 signals
1 signal	Haddon Hall Drive	(n/a)
1 signal	Apex Peakway	(n/a)
1 signal	Olive Chapel Road/ Hunter Street	(no intx. yet)
(unsignalized)	Chatham Street	1 signal
1 signal	Salem St / NC 55 (Williams Street) intx.	1 signal
1 signal	Hughes St	
1 signal	James St	
2 signals	US 1 freeway	
1 signal	Lufkin Road	
1 signal	Technology Drive	
2 signals (likely)	I-540 (future)	

Regional Transportation Alliance field review of existing traffic signals
Information on other signals obtained from Town of Cary staff



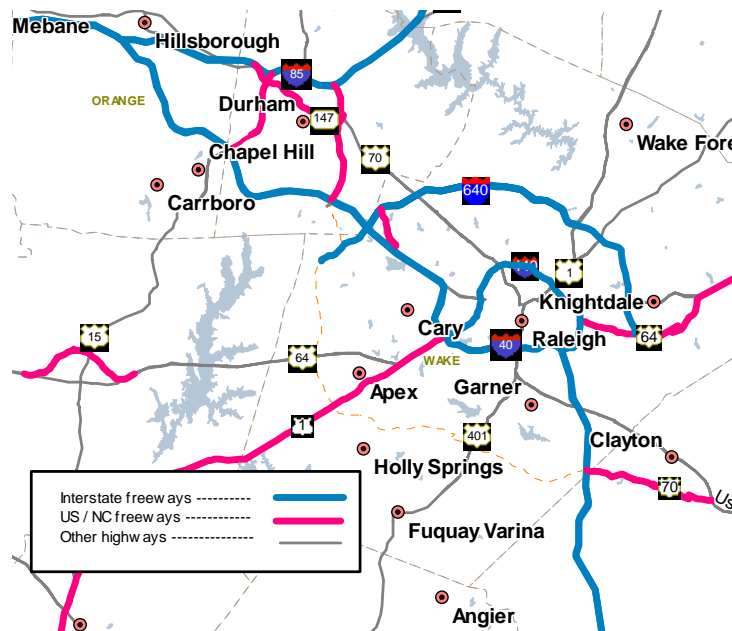
**Existing and proposed traffic signals along NC 55 and Davis Drive corridors
in vicinity of future Western Wake Freeway portion of I-540**

Benefits of a completed Triangle Parkway and Western / Southern Wake Freeway

The need for a signal-free alternative to NC 55 and Davis Drive is clear to the thousands of commuters who travel that route daily. It will become clearer in the years ahead as more traffic – and traffic signals – are added to these already overburdened roadways. Synchronizing traffic signals will help, but its success in the peak direction of flow will be limited as the level of opposing, turning, and conflicting traffic increases. Of course, the ability to synchronize traffic in the opposing direction is even more challenging.

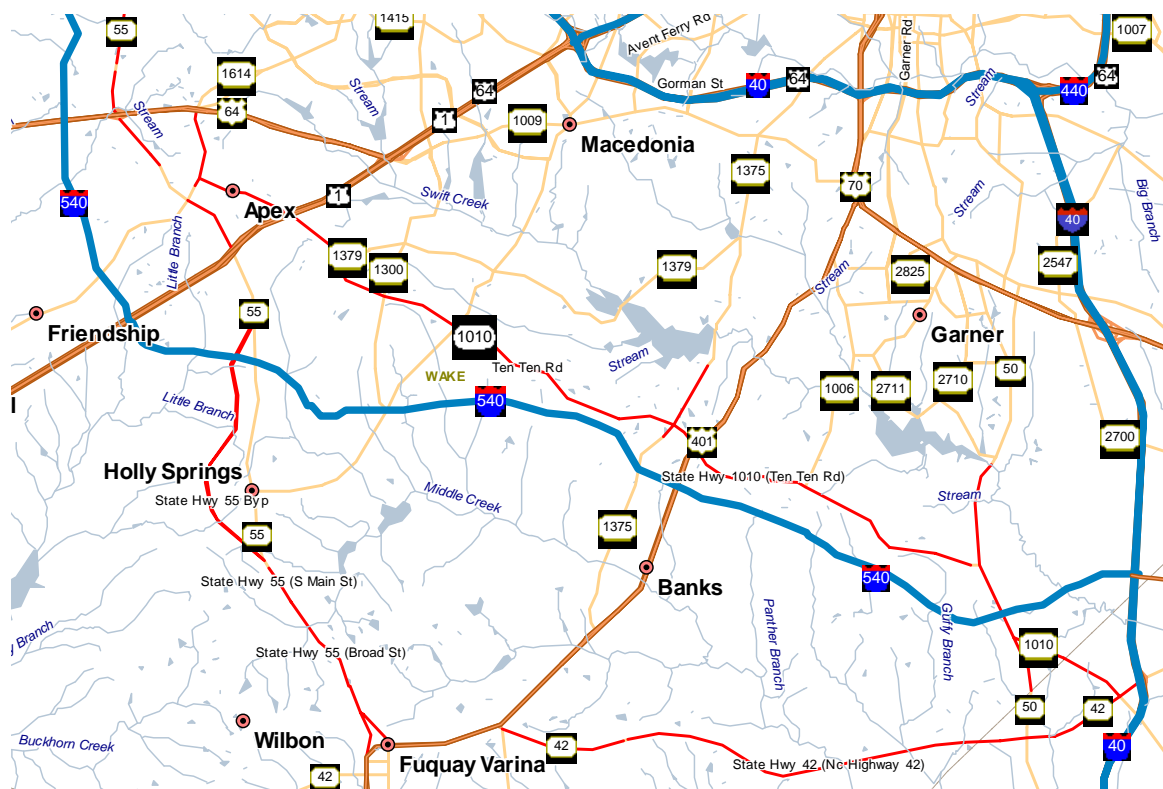
The Triangle Parkway/I-540 Western Wake freeway combination provides an alternative to the parallel NC 55 and Davis Drive corridors. The Triangle Parkway/I-540 routing is about 18 miles long—a mile or two longer than either of the existing signalized corridors for a trip from Holly Springs to I-40. Even if it were possible to receive a green light for each of the dozens of traffic signals on Davis Drive or NC 55 – and this is not a reasonable assumption – one would still save around seven minutes due to the higher 65 MPH speed limit on the Western Wake freeway and Triangle Parkway. When the reality of traffic signal delays, intersection backups, and cycle failures are considered for the existing roadways, the potential timesavings are dramatic. Going forward, as more signals are added on Davis Drive and NC 55 – each signal installation presenting a new opportunity for a motorist to experience added delay and vehicle emissions – the relative benefits of I-540 will further increase.

The Triangle Parkway/I-540 Western Wake freeway also provides an alternative to the existing US 1 and I-40 freeway routing east of Cary. For traffic from southern Apex, Holly Springs and points south and southwest, the existing US 1/I-40 freeway routing is an available alternative to NC 55 or Davis Drive. The Triangle Parkway/I-540 routing would be about five miles shorter than the US 1/I-40 routing for a trip from Holly Springs to the Durham Freeway. In addition, the I-540 routing avoids I-40 congestion today, and it avoids greater congestion tomorrow.



*Interstates, other freeways, other highways in Wake Co. in 2010
Proposed Triangle Parkway, Western Wake and Southern Wake
freeways shown dashed*

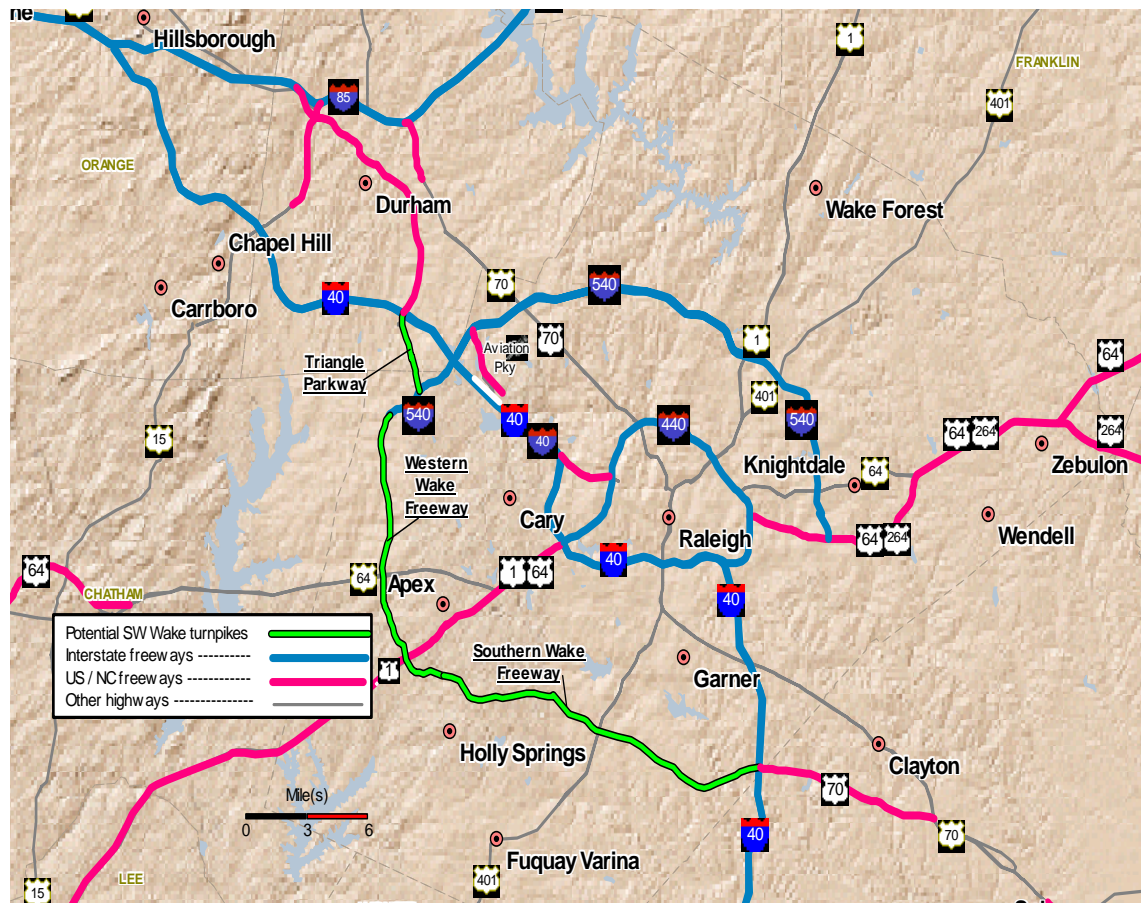
The I-540 Western Wake/Southern Wake freeway corridor provides an alternative to the parallel Ten-Ten Road (SR 1010) corridor as well as the NC 55-NC 42 corridor from Apex to Garner. The southern Wake freeway portion of I-540 will be approximately 17 miles in length. This is about one to two miles longer than Ten-Ten Road but several minutes faster. Even if one received a green light for each of the traffic signals on Ten-Ten Road and connecting streets – and this is not a reasonable assumption – one would still save around seven minutes from Apex to Garner via I-540 due to the higher 65 MPH speed limit on the Western and Southern Wake freeway. When the reality of traffic signal delays, cycle failures, intersection backups, and fewer lanes are considered for competing alternatives, the potential time savings on I-540 becomes longer. In addition, the I-540 routing would be between four and seven miles shorter than taking US 1 to I-40 between Apex and the Garner/Clayton areas.



*Proposed Southern Wake freeway corridor
Existing Ten-Ten Road, NC 55 and NC 42 corridors*

A completed Western and Southern Wake freeway and Triangle Parkway would provide more direct and/or free-flow connections between US 64 west of Apex or US 1 south of Apex and:

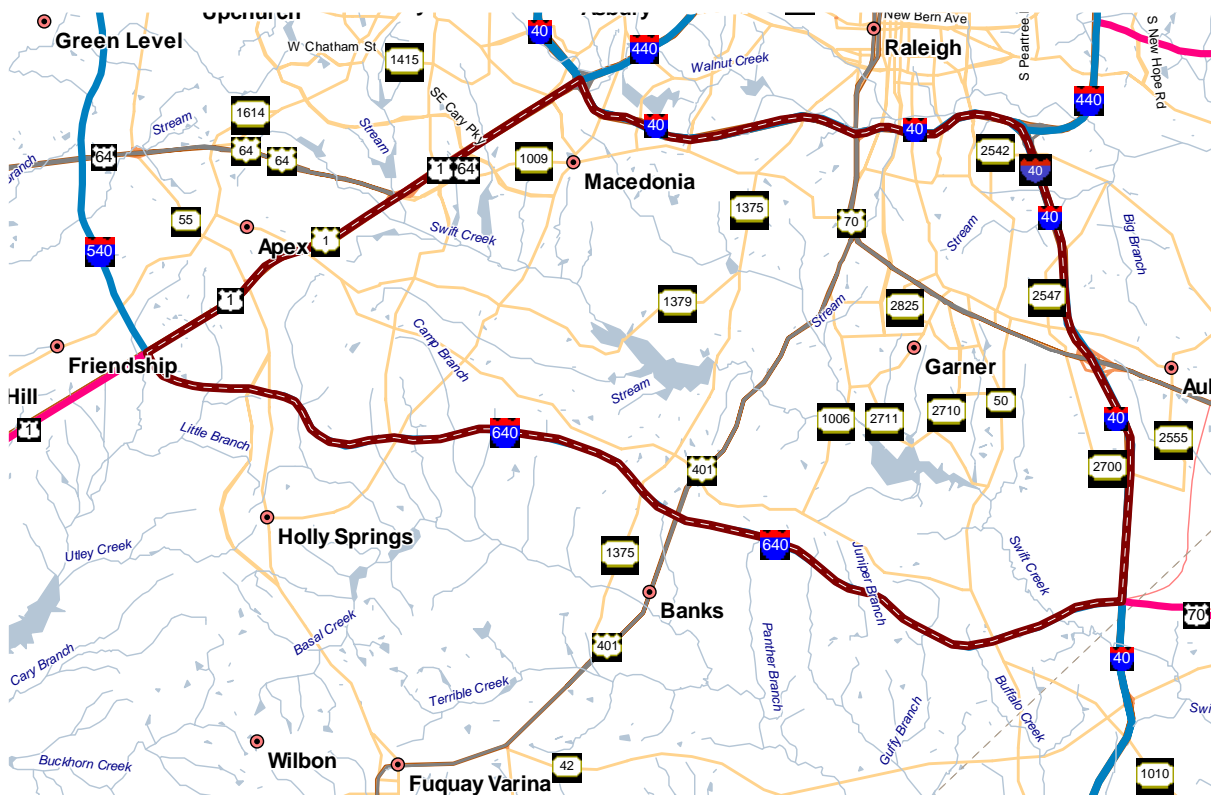
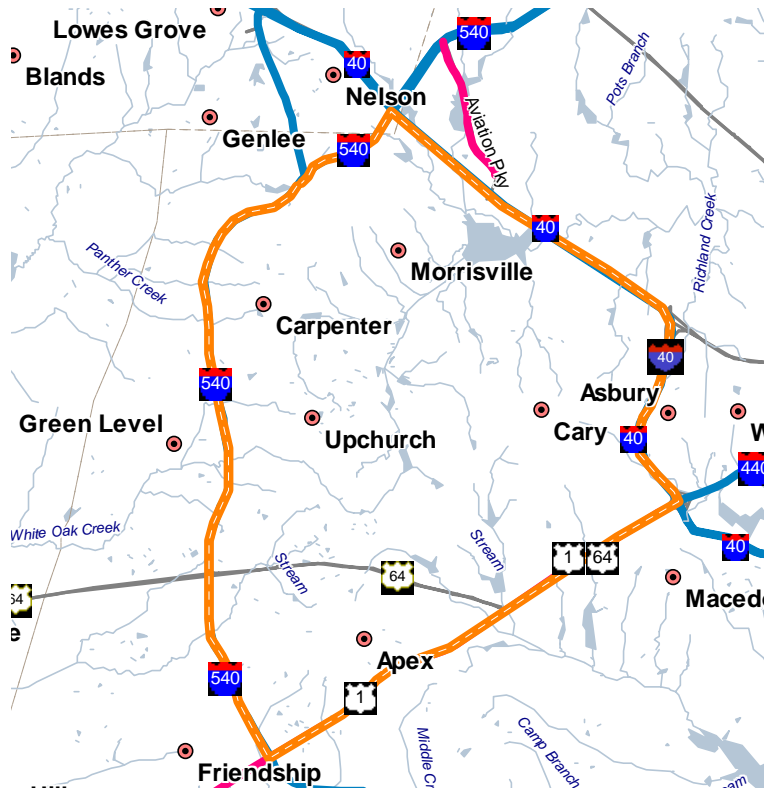
- US 70 east towards Clayton, Smithfield and Goldsboro and points south and east
- I-40 east towards Benson and Fayetteville and points south and east
- I-40 west towards Chapel Hill and Greensboro and points west
- US 1 and US 401 towards Wake Forest and points north
- Research Triangle Park, NC 147 and I-85 towards Durham, Henderson and points north



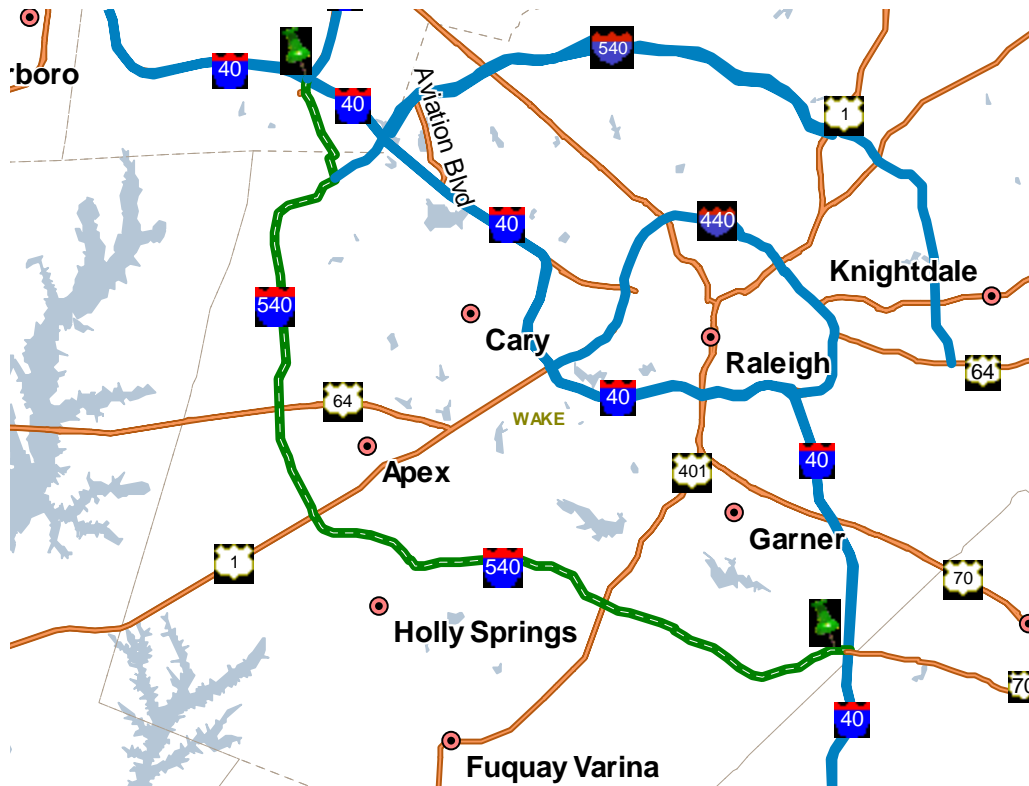
The I-540 Wake freeway loop will provide enhanced regional travel connections

A completed Western Wake freeway will create a de facto Western Wake County beltway in conjunction with the existing US 1 freeway and I-40 (west of Raleigh), as shown by the dashed orange line at right.

A completed Southern Wake freeway will also create a de facto Southern Wake County beltway in conjunction with the existing US 1 freeway and I-40 (south and east of Raleigh), as shown by the dashed brown line below.



Finally, and perhaps most importantly, a completed Western and Southern Wake freeway and Triangle Parkway spur would complete an alternative freeway routing for I-40 between the NC 147 interchange (Triangle Parkway) and the US 70/Clayton bypass interchange (at I-540), as shown by the green dashed line below.



As a result, longer distance travelers will benefit from a completed Southern and Western Wake freeway and Triangle Parkway travel option if they are traveling:

From:

- Southern and eastern North Carolina, including Fayetteville, Benson, Clayton, Smithfield, Goldsboro, New Bern, Jacksonville and points east

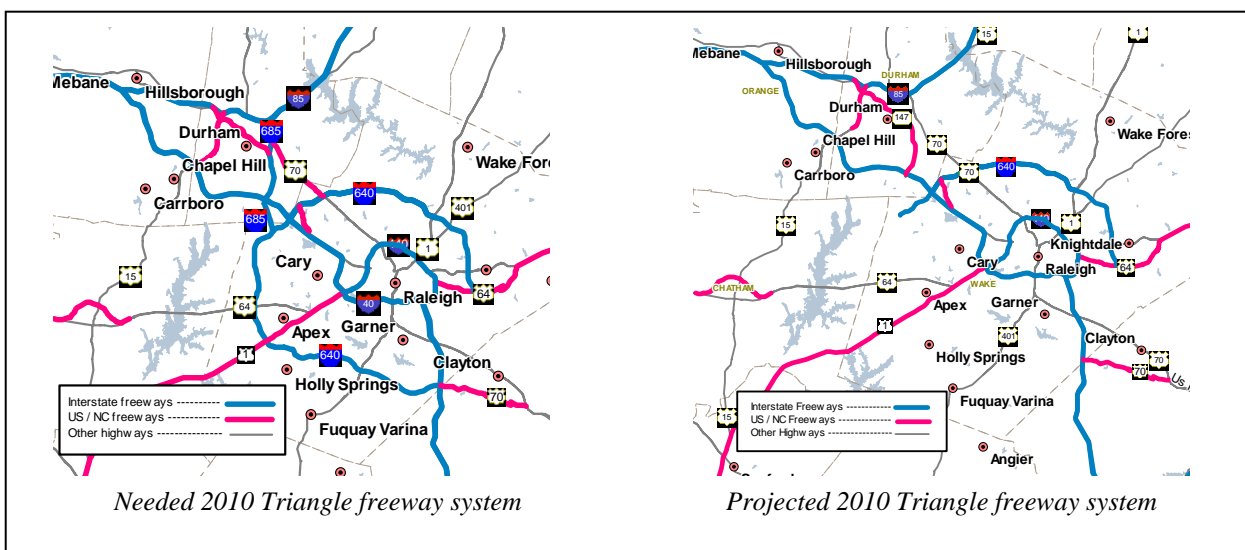
To:

- Cary, Apex, Holly Springs, Fuquay-Varina, Research Triangle Park, RDU Airport, Durham, Asheboro, Greensboro, Winston-Salem, High Point and points west

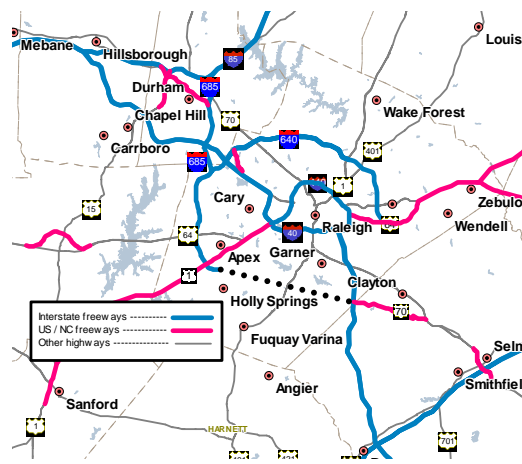
The need for finishing the Wake freeway loop and limitations of traditional funding

Wake County only possesses a single two-digit Interstate. As noted earlier, the creation of a completed I-540 as a second free-flow travel route would provide several dramatic benefits for both the region and the state: more areas of the largest county in eastern North Carolina would have ready access to a highway without traffic signals, and the alternative route would provide both relief for and a peak-hour alternative to I-40 and other routes—especially for longer distance travel.

By 2010, three of the 12 most populous counties in North Carolina – Wake (Raleigh/Cary), Cumberland (Fayetteville) and Johnston (Clayton/Smithfield) – will depend on the western and southern portions of I-540 and the Triangle Parkway spur for improved access to jobs at Research Triangle Park (RTP) and throughout the region. Unfortunately, I-540 will not be ready for them. In fact, not a single mile of the freeway in southern and southwestern Wake County will be open by that time.



NCDOT reports that the entire Western Wake freeway will open in 2022 under traditional means. However, the southern section of I-540 – essential for travel between Wake, Johnston and Cumberland counties – is not expected to be open by 2030 under current funding mechanisms. Without the completion of I-540 in southern Wake County, there will be no direct connection between the US 70 Clayton freeway bypass and the western leg of I-540. The resulting deficit in mobility infrastructure will not enhance the ability of much of central and eastern North Carolina to join in the Triangle's prosperity.



We have learned the painful lesson in 2005 the limitations in State loop and other transportation dollars. We observed in January 2005 (\$300m reallocation due to the acceleration of the Knightdale bypass) and July (I-540 Wake freeway loop slowed down four years in the TIP) the reality of slipping schedules and falling funds.

NCDOT reports that our current reality involves completion dates beyond 2020 for the Western Wake freeway and beyond 2030 for the Southern Wake freeway under traditional funding. Indeed, it may be that our projects will end up even later than these new estimates if the events of 2005 are a harbinger of days to come. And the current high gas prices make it increasingly unlikely that we will see a groundswell of support for new state transportation funding to make up the difference. If the Southern Wake freeway project takes 20 more years to get started, the potential price increases over that time (in terms of concrete, steel, asphalt, real estate, conflicts and personnel) mean that it could take even longer and cost even more.

Expected freeway completion dates under traditional financing

Route	From	To	Aprx Length	Traditional Financing*
I-540 (N) "NW" °	I-40 near RDU	NC 55 (NW Cary)	4 mi	2007 (under construction now)
Triangle Pkwy	I-40 at NC 147	I-540 at Morrisville	3 mi	2021
I-540 (W) "C" °	NC 55 (NW Cary)	US 64 at Apex	7 mi	2017
I-540 (W) "B" °	US 64 at Apex	US 1 at Apex	3 mi	2020
I-540 (W) "A" °	US 1 at Apex	NC 55 Holly Spr Byp	2 mi	2022
I-640 (S) °	NC 55 Holly Spr Byp	I-40/US 70 Clayton Byp	16 mi	2032

° I-540, the Wake Freeway Loop, is composed of the Northern, Western, Southern, and Eastern Wake Freeways. (N), (W), and (S) in this table refer to portions of the Northern segment and the entirety of the Western and Southern section.

* The completion timetables listed above for traditional (non-toll) financing are based upon consensus best estimates by NC Department of Transportation and NC Turnpike Authority staff in fall 2005.

Costs of unfunded and partially-funded freeways in western and southern Wake County

Route	From	To	Cost	Unfunded	% Unfunded
Triangle Pkwy	I-40 at NC 147	I-540 at Morrisville	\$ 100m	\$ 100m	100 %
I-540 (W) "C"	NC 55 (NW Cary)	US 64 at Apex	\$ 118m *	\$ 72m *	61 %
I-540 (W) "B"	US 64 at Apex	US 1 at Apex	\$ 113m	\$ 96m	85 %
I-540 (W) "A"	US 1 at Apex	NC 55 Holly Spr Byp	\$ 43m	\$ 43m	100 %
I-640 (S)	NC 55 Holly Spr Byp	I-40/US 70 Clayton Byp	\$ 350m **	\$ 350 m **	100 %

* The costs listed above for the section C of the western Wake freeway are based upon consensus best estimates by NC Department of Transportation and NC Turnpike Authority staff in fall 2005 as well as the TIP and do not show \$16m in prior year expenses nor \$5m in corridor environmental mitigation. A reasonable anticipation for the unfunded amount would be approximately \$24m per year in FY 2013, FY 2014, FY 2015. However, NCDOT reports that "Funding beyond 2012 is not guaranteed."

** The costs listed above for the southern Wake freeway are based upon consensus best estimates by NC Department of Transportation and NC Turnpike Authority staff in fall 2005. TIP amount is \$286m.

The potential of a turnpike solution

Many toll routes exist across the United States; however, none are in North Carolina. The Regional Transportation Alliance has supported for several years the potential use of toll roads to accelerate new highway projects. In January 2005 the Alliance took a Leadership Tour to San Diego and Orange County, California, allowing the group to analyze how toll roads improved transportation in that growing area. The Alliance led the campaign for the Triangle Parkway in the region in 2004-05. On February 16, 2005 the Turnpike Authority approved the Parkway for detailed study. In fall 2005 we revisited a turnpike concept that had been considered by the organization in a 1999 study sponsored by the Alliance – the idea focused on using tolls to accelerate the construction of the remaining sections of I-540.

Initial examination by NCDOT and N.C. Turnpike Authority staff reveals that the Western Wake freeway could be built between six and 11 years faster under a turnpike option, with the largest potential for acceleration near Holly Springs. Initial estimates by NCDOT and the Turnpike Authority indicate that the Southern Wake freeway may be built 15 or more years faster.

Expected freeway completion dates and potential accelerated dates under turnpike option

Route	From	To	Aprx Length	Traditional Financing*	Acceleration With Tolls*	Estimated Gain
I-540 (N) "NW" °	I-40 near RDU	NC 55 (NW Cary)	4 mi	2007	2007	none
Triangle Pkwy	I-40 at NC 147	I-540 at Morrisville	3 mi	2021	2011	10 years
I-540 (W) "C" °	NC 55 (NW Cary)	US 64 at Apex	7 mi	2017	2011	6 years
I-540 (W) "B" °	US 64 at Apex	US 1 at Apex	3 mi	2020	2011	9 years
I-540 (W) "A" °	US 1 at Apex	NC 55 Holly Spr Byp	2 mi	2022	2011	11 years
I-640 (S) °	NC 55 Holly Spr Byp	I-40/US 70 Clayton Byp	16 mi	2032	2016	16 years

° I-540, the Wake Freeway Loop, is composed of the Northern, Western, Southern, and Eastern Wake Freeways. (N), (W), and (S) in this table refer to portions of the Northern segment and the entirety of the Western and Southern section.

* The completion timetables listed above—for both traditional (non-toll) and toll financing—are based upon consensus best estimates by NC Department of Transportation and NC Turnpike Authority staff in fall 2005.

North Carolina law requires the presence of alternative non-toll routes before a new toll facility can be considered. Fortunately, several non-toll alternatives are available along the Triangle Parkway and Western and Southern Wake freeway corridors.

Potential toll corridor	Sample parallel alternative routes	Nearby freeway alternative
Triangle Parkway	NC 55 or Davis Drive	I-540 (N) "NW" ° to I-40 west
Western Wake freeway	NC 55 or Davis Drive	US 1 freeway to I-40 west
Southern Wake freeway	NC 55 to NC 42; or SR 1010 to NC 50 to NC 42	US 1 freeway to I-40 east
Combined travel corridor	NC 55/Davis Dr to SR 1010 to NC 50 to NC 42	I-40

* I-540 is under construction from I-40 near RDU to NC 55 (NW Cary)

Available alternative routes for potential toll freeway corridors

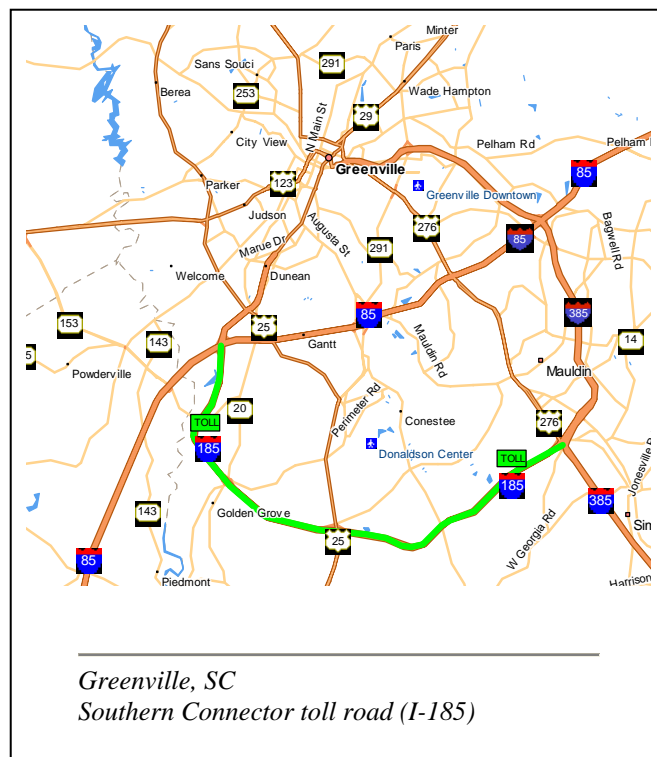
State Departments of Transportation operate several toll routes in the southern United States, including the 14-mile-long Dulles Toll Road in northern Virginia and the Pocahontas Parkway (VA 895) in Greater Richmond-Petersburg; the 3.5-mile-long Georgia 400 in north Atlanta; the 3.5-mile-long Cross Island Parkway on Hilton Head Island, S.C.; and the 16-mile Southern Connector (I-185) toll in southwestern Greenville County — part of the Greenville-Spartanburg-Anderson area, a "hyphenated" market like the Raleigh-Durham-Cary combined statistical area.



Local and regional toll authorities are also prevalent in the South and West. The Richmond Metropolitan Authority operates the Downtown Expressway (VA 195) and the Powhite Parkway (VA 76); Virginia DOT also operates the Powhite Parkway Extension (VA 76).

The Orlando-Orange County Expressway Authority board consists of three Orange County citizens appointed by the Governor of Florida, the chair of the Orange County Commissioners and the Florida DOT regional representative (ex officio). While the board composition is dictated by the state, the revenues stay where they are collected—in Orange County, Florida. The county toll freeway system is almost 100 miles in length today.

Orlando-Orange County Expressway Authority funding represents an incredible 57 percent of the highway expenditures in the next five years in metro Orlando. Since 1997 the Authority has been permitted to enter into inter-local agreements with areas outside of Orange County.



Orlando Business Journal - January 17, 2006
<http://orlando.bizjournals.com/orlando/stories/2005/01/17/story6.html>

Business Journal

EXCLUSIVE REPORTS

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From the January 14, 2005 print edition

Expressway authority paying 57% of area's road-building costs in next 5 years

Noelle C. Haner
Staff Writer

ORLANDO -- The Orlando-Orange County Expressway Authority is in the midst of its largest five-year work plan ever.

In fact, the authority's \$1.22 billion plan is the most being invested in Orlando and Orange County roads by any government or road-building agency over the next five years. The authority's funding accounts for 57 percent of all road construction dollars through 2009.

Still, transportation advocates worry the authority's plan will barely make a dent in Central Florida's problems with growing traffic congestion and a widening gap in government funding for road projects.

"The authority is holding up its end of the bargain. Without its \$1.22 billion investment, we'd be far behind where we are now," says Bob O'Malley, a spokesman for Metroplan Orlando, the metropolitan planning organization for Orange, Osceola and Seminole counties.

Orange County, California – a fast-growing area lying between Los Angeles and San Diego – has a county toll system that exceeds 50 miles in length. The bonding is of the “non recourse variety,” meaning that the bondholders are liable for any financial issues associated with the freeway system, rather than local or state taxpayers.

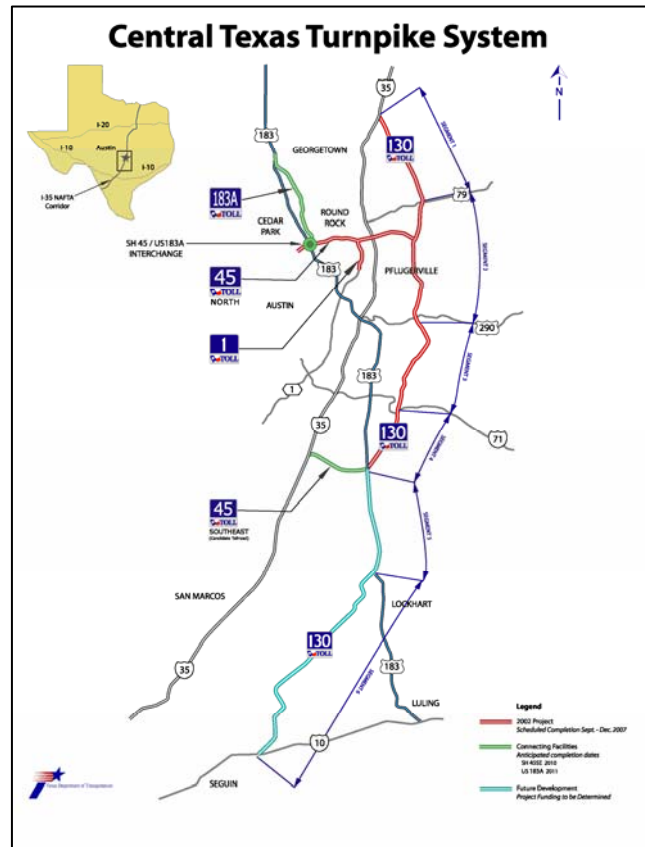
“Today, all toll and development impact fee revenue go toward retiring the construction debt, funding additional improvements, and covering costs of operating The Toll Roads.”
 - *About TCA (Orange County, Ca. Transportation Corridor Agencies) - Background and History; TCA created in 1986*

The Central Texas Regional Mobility Authority, one of several regional mobility groups in the Lone Star State, is developing a series of toll roads in Greater Austin; some are already under construction. They note that, as with the existing toll road systems in metropolitan Houston and Dallas, the revenues generated in Greater Austin will stay in Greater Austin. They also note the challenge in raising the state gas tax in Texas — even though it is significantly lower than in North Carolina.

“There’s little chance the Texas Legislature will increase the 20 cent-per gallon gasoline tax.... And, unlike gasoline taxes, which are re-distributed statewide, local toll proceeds are dedicated solely to local transportation projects.” – *CTRMA (metro Austin)*
 “About the 183A Toll Road” FAQs.

Other states are looking at toll options for many of the same reasons that we are. Virginia has signed a \$900m deal with a private firm to construct High-Occupancy toll lanes on the I-495 Capital Beltway around Washington, D.C. Maryland is building Express Toll Lanes on I-95 near Baltimore. Georgia is considering express toll lanes for I-75/I-575 in metro Atlanta. Portland is looking to tolls to speed up a highway project by almost 80 years, according to initial estimates. Other metro areas either have or are building toll roads as part of their solution to congestion.

Finally, the sale of existing toll assets is also being looked at. In January, the state of Indiana just received a \$4 billion private bid for its Indiana Toll Road (I-90).



Partial List of Toll Roads in the United States of America

Southeast metros with Toll Roads

Baltimore, MD
 Washington DC
 Charleston, WV
 Richmond, VA
 Norfolk-Va. Beach-Chesapeake VA
 Greenville, SC
 Atlanta, GA
 Orlando, FL
(Orlando continued)
 Tampa/ St. Petersburg, FL
 Miami/ Ft. Lauderdale, FL

Example Toll Roads

I-95 (JFK Hwy); I-695; I-895
 VA-267 (Dulles Toll Road and Extension; 14 mi ea, 28 total)
 I-64 / 77 (WV Tpk)
 VA-895 (Pocahontas); VA-195 (Metropol'n); VA-76 (Powhite)
 VA 168 (16 mile Chesapeake Expy), US 13 bridge-tunnel
 I-185 (Southern Connector, 16 mi long)
 GA-400 (only 3.5 miles long)
 FL-417 (56 mile Greenway eastern beltway); FL Turnpike;
 FL-528 (Bee Line); FL-408 (East-West); FL-429
 FL-589 (57 mile Veterans Expy/Suncoast Pky); FL-618; I-275
 FL Tpk (parallels I-95 for 100 miles); FL-869; FL-829

Northeast metros with Toll Roads

Portland, ME
 Concord/Manchester, NH
 Boston, MA
 Buffalo, NY
 New York, NY
 Pittsburgh, PA
 Harrisburg, PA
 Philadelphia, PA
 Wilmington/Dover, DE

Example Toll Roads

I-95 (ME Turnpike)
 I-93 (Everett Turnpike)
 I-90 (MA Turnpike)
 I-90 (NY Thruway); I-190
 I-95 (NJ Tpk), Garden St Pkwy, Hudson/E. River bridges
 I-76 (PA Tpk); PA-43; PA-60; PA-66
 I-76 (PA Turnpike)
 I-76 (PA Tpk); I-276; I-476; NJ Tpk; DE River Bridges
 I-95 (DE Tpk); I-295 DE Mem Br; DE-1 (US 13 Relief Route)

Others with Toll Roads (partial)

Houston, TX
 Dallas, TX
 Austin, TX
(Austin continued)
 Oklahoma City, OK
 Tulsa, OK
 Denver, CO
 San Diego, CA
 Los Angeles (Orange County), CA
(Orange Co. CA continued)
 San Francisco, CA

Example Toll Roads

TX-8 (60 mi long Beltway 8); Hardy Tollroad (22 miles)
 TX-190 (GBT, 29 miles long); Dallas N Tollway (22 miles)
 US-183A, US 183, TX 71 (under construction now);
 US 290, TX-45 (final design; construction within 2 years)
 I-44, Kilpatrick Turnpike
 I-44, Creek Turnpike, Muskogee Turnpike
 E-470 beltway (47 miles long)
 CA-125 (Otay Mesa); I-15 FasTrak lanes
 CA-91 express lanes (10 miles long);
 separate 51-mile long system (CA-73, 133, 241, 261)
 Golden Gate/San Francisco/San Pablo Bay bridges only

Selected Metropolitan areas without Toll Roads (partial list)

Southeast

North Carolina (all metros)
 Columbia, SC
 Charleston, SC
 Jacksonville, FL
 Tallahassee, FL
 Ft. Myers, FL
 Lexington, KY
 Memphis, TN
 Nashville, TN
 Birmingham, AL

Northeast

Providence, RI
 Hartford, CT

Others

Columbus, OH
 Phoenix, AZ
 San Jose, CA (except SF bridges)
 Portland, OR
 Seattle, WA

Toll road technology updates

Unlike the turnpikes of old peppered by tollbooths that often caused backups, many current toll roads use technology to maintain free-flow traffic. Most modern toll roads have separate high-speed express lanes for electronic toll users, including the nearby Pocahontas Parkway in Petersburg, Virginia, and the SR 73 San Joaquin Hills Toll Road in southern Orange County, Florida.



Above: Va. 895 – Pocahontas Parkway express lanes on left, cash lanes on right



Above: Ca. 73 – San Joaquin Hills Toll Road express lanes on left, cash lanes on right

Drivers typically use a “transponder” for express passage on toll roads in the U.S., including “EZ Pass” (Virginia to Maine, plus Illinois), “SmartTag” (Virginia, now part of EZ Pass), and “FasTrak” (California). Texas is switching from transponders to sticker tags. One North American toll route, “407 ETR” in metro Toronto, offers but does not require transponder use. Instead, optical character recognition technology replaces coin collection baskets for casual users. The 407 toll road reports that more than 98 percent of potential trip transactions are both readable and billable.



Above (clockwise from left): Transponders used in Maryland, Virginia, and California



Above and right: 407 ETR mainline toll plaza in metropolitan Toronto, Ontario, Canada



Selected toll roads in the Southeastern United States

State	Metro area served	Toll facility	Type	Length ^o	Toll*	Rate
Virginia	Washington, DC	Dulles Toll Road (VA 267)	state	12.5 mi	\$ 1.25	\$ 0.10/mi
Virginia	Richmond	Downtown Expressway (I-195)	local	3.3 mi	\$ 0.45	\$ 0.14/mi
Virginia	Richmond	Powhite Parkway (VA 76)	local	3.4 mi	\$ 0.45	\$ 0.13/mi
Virginia	Richmond	Pocahontas Parkway (VA 895)	state	7.9 mi	\$ 2.00	\$ 0.25/mi
So. Carolina	Greenville	Southern Connector (I-185)	state	13.2 mi	\$ 1.50	\$ 0.11/mi
So. Carolina	Hilton Head Island	Cross Island Parkway	state	3.9 mi	\$ 0.50	\$ 0.13/mi
Georgia	Atlanta	Georgia 400	state	3.7 mi	\$ 0.50	\$ 0.14/mi
Florida	Orlando	East-West Expressway (FL 408)	local	20.2 mi	\$ 2.50	\$ 0.12/mi

NOTES

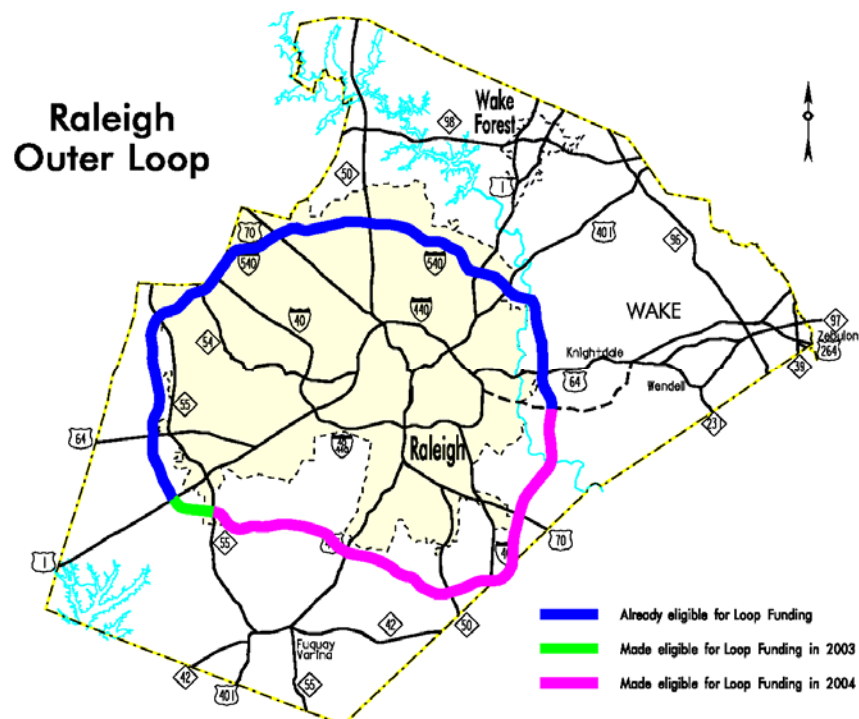
^o Toll lengths shown represent net tolled mileage between intersecting roadways as experienced by users as calculated by Alliance staff

* Toll costs shown are for users of SmartTag/EZ-Pass (VA), PalmettoPass (SC), CruiseCard (GA), or E-Pass/SunPass (FL) transponders. Cash users pay more on some facilities; commuter discounts are not included in amounts shown.

Many of toll roads in the South have rates of \$0.10/mile to \$0.15/mile, with longer routes typically having lower per-mile rates. A nearby exception is Virginia's Pocahontas Parkway, with toll rates for the connector between I-95 and I-295 increased to \$2 as of January 2006 – around \$0.25/mile – in order to help meet long-term debt payments.

It is interesting to note that at least four Southern toll roads have effective lengths of three to four miles – about the same as the proposed Triangle Parkway spur. Each of these routes charges transponder users around \$0.50 or around \$0.14/mile. A January 2006 presentation to the NC Turnpike Authority suggested that a significantly higher amount – \$1/trip – might be appropriate for our region's three-mile long Triangle Parkway.

Toll roads are often unable to cover all construction and operating costs, and supplemental revenue sources must be found. It is important to note that the balance of the Raleigh Outer Loop—including the Southern Wake freeway—became eligible for Highway Trust Fund loop funding in 2004.



NCDOT

Alliance position and concerns

In 2004 the Alliance led the regional campaign for the Triangle Parkway spur of I-540. We were pleased to see the N.C. Turnpike Authority approve a financial feasibility study for the Triangle Parkway in 2005. Given potential acceleration timetables of more than a decade for portions of the Western Wake freeway and nearly a generation for the entire Southern Wake freeway, the Alliance and the mayors of southwestern Wake County signed a resolution asking the N.C. Turnpike Authority to conduct a study concerning the potential of accelerating the Western and Southern Wake freeways as two phases of a single potential turnpike project. The NC Turnpike Authority accepted the I-540 resolution from the Alliance and the mayors of southwestern Wake County and authorized the financial feasibility study on December 14, 2005.

It is important to note that, while the Alliance is supportive of the I-540 study, we still have some unanswered questions about the turnpike concept. We will look to the study and follow-up initiatives to provide answers to the key policy issues outlined below.

Freeway construction timetables must be significantly accelerated

The Western Wake freeway received an approved Record of Decision concerning its Environmental Impact Statement (EIS) documentation in spring 2004. With an EIS in place, the Western Wake freeway has the real potential of being the first toll road in the state built by the Authority. If tolls are found to be viable and if the region were to move forward with the turnpike option, the citizens of the region and state will have an opportunity to see first-hand whether tolls can significantly accelerate the construction of needed projects. Our organization is cautiously optimistic that the freeways could be built years earlier with toll financing added to the mix.

We are awaiting the results of the ongoing feasibility study to determine how many years we might expect to save. It is unlikely that the region will accept tolling as an option unless the time savings will be significant. The level of success shown here will impact the support for future toll roads in this and other areas of North Carolina among citizens, business leaders and elected officials. In light of successes in Virginia and elsewhere using public-private partnerships for transportation infrastructure, the prospect of private sector operation should also be considered here in order to expand the range of financial and construction acceleration opportunities available.

Toll revenues must stay here

Competing economic regions such as Austin, Orlando and Orange County, Calif., have county or regional authorities—arrangements that ensure that tolls generated within a metro area stay within that metro area. If the feasibility study were to indicate that turnpike operation would be viable for the southern and western sections of I-540 and if the region were to move forward with the toll concept, the region will expect either legislative, contractual, and/or policy guarantees that revenues generated on turnpikes in southwestern Wake County stay here.

Tolls must sunset if implemented

We will require assurances that the provisions of General Statute § 136-89.196 – which require the removal of tolls upon fulfillment of the Turnpike's revenue bonds – are adhered to. After the revenue bonds are paid off, users should have the ability to travel toll-free on I-540 in western and southern Wake County. Of course, the region may decide to reserve a future travel lane on I-540 in southwestern Wake County for high-occupancy or *ValuExpress* travel during peak hours — as indeed it may choose to do on I-40 or the existing I-540. Nonetheless, tolls must be removed from the general travel lanes as soon as the road is paid for and a maintenance fund is established in order to ensure ongoing public support for turnpikes in this region and elsewhere.

Toll revenues must supplement and not supplant revenues

We will seek assurances to ensure that toll revenues supplement and not supplant our region's current and expected highway funds. Of course, a provision that all toll revenues generated here must stay here would also help ensure that tolls supplement and not supplant our regional transportation contributions.

Southern section must be built

Turnpikes may allow the State to leverage its limited loop resources over more regions of the state. If tolls are found to be viable and if the region were to move forward with the turnpike concept, the region should request a funding partnership agreement with NCDOT — guaranteeing that the required balance of loop funding will be available to complement toll revenues in order to complete both the western and southern sections of I-540 by the timetables confirmed in the study. Initial NCDOT and Turnpike Authority estimates are 2011 and 2016 for the western and southern sections of I-540, respectively.

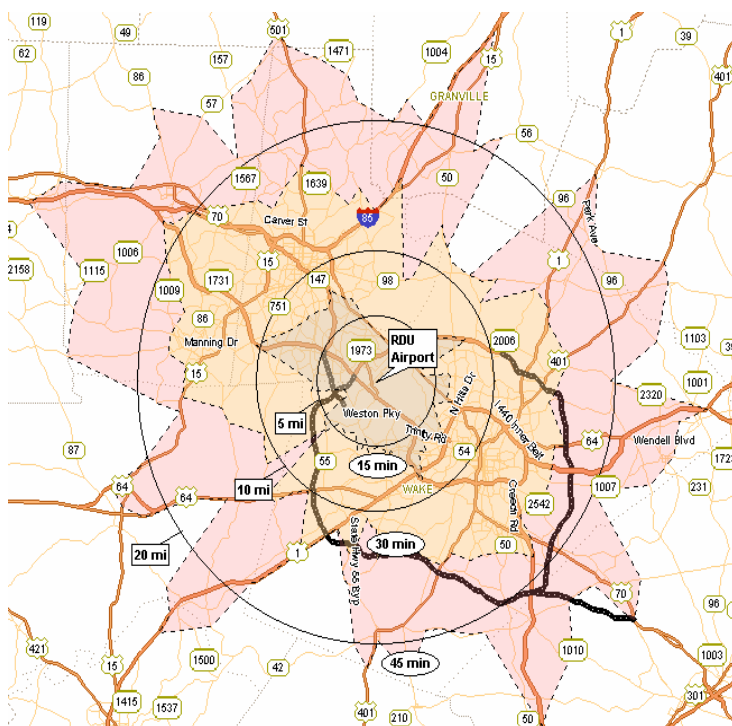
Sensitivity analysis should include a contingency plan

Many toll roads are successful, and some toll roads with initial challenges become successful as economies rebound (e.g., Dulles Greenway in metropolitan Washington, D.C.). Some roads have challenges, however, and indeed the closest operating toll road to Wake County – the Pocahontas Parkway in metropolitan Richmond, Virginia – is experiencing lower traffic volumes than expected. A contingency plan should be developed for I-540, should toll revenues fall below forecast amounts.

The consequences of waiting

The US 64/US 264 Knightdale bypass opened less than one year ago, the I-540 connector to that bypass opens within two years, and the Clayton bypass will open by the end of the decade. These are needed projects for the Triangle, and ones that have been supported by the Alliance for years. As a result of these improvements, travel times from much of Nash, Wilson, and Johnston counties to Wake County have and will decrease. Unfortunately, the congestion on I-40 itself, coupled with the absence of a reasonable alternative to it (due to an incomplete I-540 in southwestern Wake County), will result in steadily worsening travel times within Wake County—for travelers from southern and western Wake County as well as for those traveling here from nearby areas.

Every year the travel time to RDU airport from southwestern Wake County increases, and trip times to the airport from southwestern Wake County and beyond will continue to increase until we complete the I-540 freeway loop. Without reliable trip times to key locations like RDU, economic development and quality of life are hampered—in southwestern Wake County and throughout the Triangle. This specter of declining mobility in southern and western Wake County is unacceptable, and yet it is an unavoidable near-term reality. Even if sufficient funding were identified tomorrow, the Western and Southern Wake freeways would still be years away. Without the presence of an alternative to I-40, the same is true for the rest of eastern North Carolina.



Off-peak travel times to RDU airport

May 2005 ESRI data, showing 15, 30, and 45 minute bands
(before opening of US 64/264 Knightdale bypass)

If we do not fix the congestion problems in southern and western Wake County – Davis Drive and NC 55 are being widened – but these are still roads with dozens of stoplights that converge in downtown Apex, not 65 MPH freeways—many of our region's citizens will indeed face a future of diminishing mobility, increased pollution, decreased economic health and a rapidly declining quality of life. We must quickly identify funding to finish the I-540 Wake freeway loop. We already have environmental approval for the Western Wake freeway, but such approvals do not last forever. *We are losing time.*

Recommendations

This report speaks of the possibility of using toll revenues to gain a new option to significantly improve mobility in the Triangle. In many ways, we are *already* paying a toll today: a congestion toll. And unlike a potential turnpike, we have no option to avoid paying this toll, and we receive no benefits from the congestion. We pay this congestion toll day in and day out, over and over again in terms of longer delays, travel time uncertainty and adverse environmental effects as well as reduced economic development opportunities and quality of life.

At the request of the mayors of southwestern Wake County and the Regional Transportation Alliance, the N.C. Turnpike Authority is currently conducting a detailed feasibility study to determine the true viability of, and expected time savings associated with, accelerating the construction of both the western and southern portions of the I-540 Wake freeway loop as two phases of a single turnpike project.

We will seek answers to the following questions from the study and ongoing research that NCDOT and NC Turnpike Authority staffs are undertaking:

- More detailed and/or updated estimates of the completion dates without tolls (i.e., traditional funding sources)
- More detailed and/or updated estimates of the completion dates with tolls
- Refined cost estimates under all scenarios
- Expected contribution of tolls to the overall construction cost and expected Highway Trust Fund requirements for supplementing toll revenues under an accelerated completion
- The potential for GARVEE bonds and/or federal revenues to help accelerate all or portions of the project, with or without tolls
- Population and traffic projections for the area serviced by the corridors
- Projected toll levels, toll usage (traffic volumes) and toll revenue
- An overall assessment of the viability of the project and a sensitivity analysis for consideration of changes in assumptions
- Status of free alternatives and their upgrades (Davis Drive, NC 55, NC 42, Ten-Ten Road), including expected travel times today and in the future along these roadways as traffic signals are added and improvements are undertaken
- The impact on regional air quality of accelerating construction of a signal-free alternative to current roadways connecting southwestern Wake County with RTP

The key requirements for the Alliance to continue its support for the project are:

- Freeway construction timetables must be significantly accelerated
- Toll revenues generated here must stay here
- Tolls must sunset in accordance with state law if they are implemented
- Toll revenues must supplement and not supplant the region's highway funds
- Provision for accelerating the southern section of I-540 must be included as part of any plan to build the western portion of I-540 as a toll road
- Sensitivity analysis must include a contingency plan for low toll revenues

Regarding the above, the Alliance continues to recommend that the ongoing Turnpike study provide the region's elected officials and citizens with sufficient assurances concerning the following:

- All provisions of General Statute § 136-89.196, which require the removal of tolls upon fulfillment of the Turnpike's revenue bonds, are adhered to
- All toll revenues generated by I-540 and the Triangle Parkway must be used exclusively for pay down of the Turnpike's revenue bonds associated with the completion of I-540 and the Triangle Parkway

In addition, if tolls turn out to be viable and if the region were to move forward with the Turnpike concept, the Alliance will strongly advocate for the following:

- High-speed toll collection along the lines of Florida 417, Delaware Route 1, Pocahontas Parkway, 407 ETR, and other turnpikes
- Due consideration of fully electronic toll collection along the lines of 407 ETR in metro Toronto to simplify usage for the occasional traveler and to eliminate right-of-way requirements for added toll plaza lanes
- A transponder or toll sticker that is interoperable with all toll roads in the region and state
- Due consideration of compatibility with existing toll roads in Virginia/northeastern U.S. (EZ-Pass/SmartTag), South Carolina (Palmetto Pass), Georgia (Cruise Card) and Florida (SunPass/E-Pass)
- Due consideration of transponder compatibility and usage for downtown and RDU airport parking similar to the E-Pass/SunPass program at Orlando International Airport
- Discounted pricing during off-peak periods to encourage use of the new freeways
- Variable pricing to guarantee free-flow travel and to promote carpooling



Conclusion

According to the U.S. Transportation Research Board, "*Workplaces and residences will move away from congestion within metropolitan areas and from more-congested to less-congested regions within the United States.*" Past, current and projected growth in Wake County and surrounding areas and environs require a major, ongoing investment in mobility infrastructure. The completion of key multimodal improvements, including transit, freeways, pedestrian-bicycle trails, boulevards and intersection upgrades is essential for our continued economic competitiveness. With extremely rapid growth projected both in population and traffic, there is a clear need for accelerating the southern and western sections of I-540, which together with the Triangle Parkway comprise the only reasonable alternative to the I-40 corridor going forward.

The rapid completion of I-540 holds the promise of welcome relief for the Triangle, with added benefits accruing to travelers from throughout the state and beyond. A completed I-540 will also help get through traffic off of roads with local motorists and pedestrian and bicycle travelers and help people reclaim their communities.

"Workplaces and residences will move away from congestion ... from more-congested to less-congested regions within the United States..."

The potential for accelerating I-540 via turnpike funding is real, the numbers look promising and we have a responsibility to learn more. We are confident that, with a thorough analysis in hand, state transportation officials, local elected officials, RTA members and other interested parties can determine the best course of action for accelerating I-540. If the toll option were found to be a viable and appropriate means of significantly accelerating the Southern and Western Wake freeway (I-540) and the Triangle Parkway, we pledge to support the turnpike concept for these roadways — if we can be assured that the tolls would be used only for those projects and that the tolls sunset once the revenue bonds have been paid.

- Transportation Research Board

TRB Special Report 271 - Freight Capacity for the 21st Century - 2002

The bottom line is that waiting until 2030 and beyond to complete needed portions of our freeway system is not a viable or acceptable option. We need to find a solution – tolls or no tolls – for rapidly completing the I-540 freeway loop. Inaction will translate into further delays for travelers, increasing threats to our economic competitiveness, and a reduced quality of life in the region, but most especially for western and southern Wake County residents. Other metropolitan areas in the country, including Greenville (S.C.), Orlando, San Diego and Austin, have met similar transportation challenges in order to protect the quality of life in their regions. We must do the same. Commencing a study of accelerating I-540 was a crucial first step for our region to begin to take control of our mobility future. The world economy will demand that we find and implement mobility solutions to stay competitive, and the Research Triangle Region—and indeed all of central and eastern North Carolina—deserves no less.

FAQs

Q. Why does the Regional Transportation Alliance support the consideration of toll roads to accelerate I-540 and the Triangle Parkway?

A. The Alliance advocates completing our multimodal transportation system in order to preserve our economic competitiveness, relieve congestion, improve air quality and strengthen our community's overall quality of life. The region has identified the Western and Southern Wake freeways as top priorities; these roadways are decades from completion under current funding scenarios. We don't like the thought of paying tolls any more than anyone else, but our region is already paying a "congestion toll" and getting nothing in return. We support a study to determine if the roads can indeed be built faster through toll financing or another means.

Q. If tolls are found to be viable and the region moves forward with the turnpike concept in order to accelerate construction of I-540, implementation of tolls would mean that the southern part of the county would be paying tolls to use their section of I-540 and the northern portion would not have to. That does not seem fair.

A. The western and southern sections of I-540 are under consideration for the viability of tolling to accelerate construction, while the northern section of I-540 is not a toll road because Highway Trust Fund loop funding was available when it was built. We affirm the desire for fairness, and yet we recognize that, in light of current funding realities, waiting for the "fair" and "free" (traditional funding) option will be just that — waiting.

The Alliance believes that our region's focus must remain on how to best accelerate the construction of the Southern and Western Wake freeways. Indeed, it would not be fair to the citizens and businesses in southern and western Wake County to ignore consideration of a mechanism that offers the potential for moving the construction of our desperately needed freeways up a decade, and perhaps a generation, faster. Right now, construction of the Western Wake freeway is not expected to reach Holly Springs before 2020, and there is no construction date yet set for the southern portion. If the turnpike concept would turn out to be a viable means of accelerating construction of I-540 that would potentially provide our region's motorists with a new option much sooner. Of course, all existing roads would remain as non-toll options, just as they are today.

Q. Is the Alliance proposing that the region toll existing freeways?

A. No.

Q. How do we know that the road will be built faster with tolls? If I only had to wait a year or two more, I would rather avoid the toll.

A. Initial estimates indicate that adding toll financing to the mix may allow the Western Wake freeway to open to Holly Springs a decade faster and the Southern Wake freeway 15 years or more years faster. While these are only initial estimates, they are promising and worth further deliberation. The ongoing study will provide specifics.

Q. What if no one will pay the toll and we end up with an empty road?

A. NC 55 and Davis Drive have dozens of traffic signals along their respective corridors; 28 are in operation on NC 55 today between I-40 and Holly Springs. The Western Wake freeway will have no traffic signals and a significantly higher speed limit. While a study is needed to identify specific usage estimates, clearly there will be travelers who value their time and will be willing to pay the toll because the freeway will always be faster.

Q. I won't save any time if I have to stop at tollbooths. Why is the Alliance pushing for consideration of this outmoded concept? Richmond got rid of theirs years ago.

A. If tolls are found to be viable and the region moves forward with the turnpike concept in order to accelerate construction of the Triangle Parkway and I-540, we will advocate for a fully electronic toll road along the lines of the 407-ETR in Toronto or the express lanes on the Pocahontas Parkway in Petersburg, Va. No one has to stop, or even slow down, to pay tolls on these lanes. Transponder or toll sticker and optical character recognition technology allow for high-speed toll collection.

Q. I would not want to have a transponder or a toll sticker.

A. If tolls are found to be viable and the region moves forward with the turnpike concept in order to accelerate construction of the Triangle Parkway and I-540, we will advocate for a method that will allow for the casual user to easily travel on these facilities.

Q. What if everyone uses it? Will I be paying to use a crowded freeway?

A. If tolls are found to be viable and the region moves forward with the turnpike concept in order to accelerate construction, the Alliance will advocate for variable value pricing to provide discounts during off-peak times and to encourage carpooling. A toll I-540 or Triangle Parkway would be unique among area freeways in that the ability to vary the price would guarantee free-flow.

Q. Perhaps building the freeway is not a good idea—won't it cause sprawl?

A. The growth is already here and more is on the way. Wake County is expected to be the largest county in the state within the decade, and we are among the fastest-growing metropolitan centers in the U.S. The Alliance is advocating for the accelerated completion of a key link in our mobility infrastructure for an area that has already experienced significant development in order to allow growth to occur effectively in Wake County rather than forcing it to move to outlying areas. Even though the distance is much further away, eastern Wake County and western Nash and Wilson counties have quicker commutes to Raleigh and Research Triangle Park than portions of southern Wake County today.

Q. Why are you advocating for I-540 and not rail transit?

The Alliance has consistently advocated for a multimodal transportation system in the Triangle. Our support for regional transit has been unequivocal and continues to this day, even in light of recent challenges in federal funding for the rail system. The portion of I-540 under consideration by the Turnpike Authority lies in southwestern Wake County — an area not served by the proposed initial or expected follow-up rail phases.

A completed I-540 will provide relief for congested roadways and enable buses to better serve the corridor and offer express service along the freeway. Indeed, the freeway will provide enhanced travel for buses, carpools, vanpools, solo drivers and families, taxis, and trucks. Rail transit service may also be a future option for this corridor. Of course, any fixed route alternative could not serve the needs of all users, and the freeway would still be required. The bottom line is that it cannot be an either-or decision — we must develop an effective, multimodal system for mobility success going forward.

Q. The Alliance led the successful campaign for the Triangle Parkway that was approved by the N.C. Turnpike Authority earlier in 2005. Where will the Triangle Parkway go? How would I get from the Parkway to the Wake freeway loop?

The Triangle Parkway will begin at I-40 at the Durham Freeway (NC 147) interchange and extend into southern Research Triangle Park. The freeway will end at I-540.

Q. Will I have to pay a separate toll to use the Triangle Parkway and the Western Wake Freeway?

A. If tolls are found to be viable and the region moves forward with the turnpike concept in order to accelerate construction of the Triangle Parkway and I-540, we expect that one will likely pay by usage along the freeway mainline via electronic toll collection at various points along both freeways. If you were to use both freeways, you would likely pay to use both freeways if both were operated as toll roads.

Q. You refer to these roads as freeways, but if either of these roads is built as toll roads, they will no longer be a "freeway." Shouldn't you refer to each of these roads only as a turnpike rather than a freeway?

A. "Freeway" means that traffic flows freely on the facility and that the road is free of traffic signals. This differentiates roads such as I-540 and the Triangle Parkway from Davis Drive, NC 55, Ten-Ten Road and other roadways in southwestern Wake County where traffic signals and delays are plentiful.

Q. Shouldn't we focus on the highway allocation formula before looking at tolls?

Loops are exempt from the allocation formula, so a change in this formula will not provide additional resources to accelerate the construction of the I-540 freeway loop around Raleigh. Still, the Alliance agrees that the current allocation formula does not adequately account for growth and inter-county travel, and we will continue to ask state officials for relief.

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The Regional Transportation Alliance is the regional business leadership group that focuses on relieving traffic congestion and enhancing mobility. The Alliance identifies, promotes, and accelerates transportation policies and multimodal solutions that ensure economic vitality and preserve our quality of life.

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